

Descriptions of some Japanese Hymenoptera; by FRANCIS
WALKER, Esq.

Considering the earth without reference to the human race, Asia and Europe may be regarded as one Continent, which surpasses all others in size, and displays in the Northern hemisphere by far the greatest expanse on the surface of the land, and affords the greatest facilities or the fewest obstacles to the migration and diffusion of species. At each end of this region there is a group of islands—the British Isles on the west and the Japanese Isles on the east; and they mark the extremes of difference in the insect races which inhabit this extent. The distance between the two groups occupies nearly half of the circle of longitude there, and the British Isles are much more contiguous to North America; but the Atlantic is now fixed between them, and it has been supposed that some of the Insect-Fauna which Europe and North America had in common has passed away in the former country by means of change of climate, of elevation, or of aspect in the region, or by the expulsion or extermination of some kinds by other kinds. Previous to making some notes on a few groups of insects in the longitudinal range of Northern Asia and of North America, I have in this communication recorded twenty-four Japanese Hymenoptera, for which I am indebted to Mr. F. Smith, of the British Museum.

ICHNEUMONIDAE.

1. *Ichneumon albidipes*.

Male. Black, shining, thickly and very minutely punctured. Antennae slender, much shorter than the body. Areas of the metathorax well defined. Abdomen subclavate, slightly petiolated, very much longer than the thorax; hind border of the second segment whitish. Four anterior legs whitish excepting the coxae; middle femora

striped with black; hind tarsi whitish. Wings dark cinereous; stigma and veins black; discal areolet pentagonal. Length of the body 3 lines.

2. *Ichneumon diversipes*.

Male. Black, shining, thickly and very minutely punctured. Head as broad as the thorax; front white. Antennae piceous, a little shorter than the body; first joint with a white spot beneath. Metathorax with a slight longitudinal furrow. Abdomen fusiform, nearly smooth, a little longer than the thorax. Four anterior legs pale luteous except the coxae. Hind femora red towards the base; hind tibiae red, black towards the tips; hind tarsi white, first joint and tip of fifth joint black. Wings blackish; stigma and veins black; discal areolet pentagonal, small. Length of the body 4 lines.

3. *Ichneumon lanceolatus*.

Male. Black, slender, shining, very finely punctured. Antennae somewhat shorter than the body. Abdomen more than twice as long as the thorax, clavate from the base to half the length, lanceolate, and thence compressed to the tip; hind borders of the segments luteous; under-side white. Four anterior legs pale testaceous; coxae and trochanters black; femora partly black, whitish at the base. Hind tibiae whitish at the base. Wings dark cinereous; stigma and veins black; discal areolet pentagonal. Length of the body 3 lines.

4. *Ichneumon insolitus*.

Female. Black. Head and thorax finely punctured. Clypeus ferruginous. Antennae stout, much shorter than the body, joints 7-11 white. Mesothorax rather flat. Metathorax with distinct areas, abruptly sloping hindward. Abdomen very finely punctured, a little longer than the thorax, dingy testaceous at the tip and beneath, fusiform excepting the petiole which is rather long and slender. Legs short, stout. Four anterior legs whitish; femora, except at each end, tarsi and tips of tibiae blackish. Hind legs with the tips of the coxae, the trochanters and the

tibiae towards the base white. Wings blackish; stigma and veins black; no discal areolet. Length of the body $3\frac{1}{2}$ lines.

Male. Head yellow, except the vertex. Antennae piceous, rather slender, shorter than the body, yellowish beneath towards the base. Thorax and abdomen somewhat roughly punctured. Abdomen linear, subsessile, very much longer than the thorax, whitish beneath. Four anterior legs yellowish-white; coxae black; femora and tibiae striped with black. Hind legs black; tibiae white for half the length from the base.

CRYPTIDÆ.

5. *Ischnocerus bicinctus*.

Female. Black. Head and thorax thickly and minutely punctured, slightly shining. Head broader than the thorax. Mandibles yellow. Antennae shorter than the body; first joint red beneath. Metathorax convex. Abdomen fusiform excepting the petiole, much longer than the thorax; second and third segments red about the hind border. Sheaths of the oviduct more than half as long as the abdomen. Legs pale red. Wings cinereous; stigma and veins black; no discal areolet. Length of the body 3 lines.

6. *Cryptus variator*.

Female. Black, shining, very finely punctured. Antennae slender, filiform, much shorter than the body, whitish at the base and with a broad whitish band at a little beyond the middle. Metathorax red, large, convex, with a slight transverse furrow. Petiole black, short. Abdomen fusiform above, thicker beneath towards the tip, red towards the base, much longer than the thorax; a white spot at the tip. Oviduct not less than half as long as the abdomen. Four anterior legs piceous. Hind legs black; femora towards the base and coxae red. Wings blackish; stigma black, whitish towards the base; veins black, tawny towards the base; discal areolet open. Length of the body 5 lines.

7. *Cryptus maculipes*, Smith.

Female. Black, shining. Head and thorax thinly punctured. Head rather broader than the thorax. Antennae slender, shorter than the body; first joint incrassated; second to fifth very long, successively decreasing in length; sixth to tenth white above. Metathorax large, convex. Abdomen subfusiform, rather longer than the thorax, flat towards the base; petiole short, the following segment widening hindward. Oviduct a little less than half as long as the abdomen. Wings blackish; basal half cinereous; stigma and veins black, the former whitish at the base; discal areolet open. Length of the body 4 lines.

The male is described by Mr. Smith.

8. *Mesostenus* (?) *laticinctus*.

Male. Black, shining, minutely punctured. Head a little broader than the thorax. Antennae ferruginous, rather slender, much shorter than the body. Metathorax dull, minutely scabrous, with a broad longitudinal furrow between two keels. Abdomen very much longer than the thorax, subfusiform except towards the base; petiole striated; second segment widening hindward; third, fourth, and fifth red; fifth much longer than the third and than the fourth. Legs red; hind tarsi and tips of hind femora and of hind tibiae black, wings dark cinereous; stigma and veins black; discal areolet open.

Var. B. Hind femora black, except at the base.

Length of the body 5 lines.

PIMPLIDÆ.

9. *Glypta albicoxa*.

Nearly allied to *G. ceratitis*.

Female. Black, slender, smooth, shining, mouth white. Antennae slender, rather shorter than the body. Mesothorax somewhat attenuated in front; sutures of the parapsides very strongly marked; metathorax with a middle longitudinal furrow and with oblique striae on each side. Abdomen tapering towards the base, white beneath, very much longer than the thorax; each dorsal

segment with an oblique stria on each side. Sheaths of the oviduct hardly one-fourth as long as the abdomen. Legs luteous; coxae and trochanters white; tarsi blackish; hind tibiae black, with a broad white band at a little before the middle. Wings cinereous; stigma and veins black; no discal areolet. Length of the body $3\frac{1}{2}$ lines.

10. *Lissonota semistriata*.

Female. Black, shining. Head smooth, fully as broad as the mesothorax. Antennae nearly as long as the body. Thorax slightly and thinly punctured; sutures strongly marked. Metathorax scabrous, with three longitudinal keels. Abdomen smooth except the three first segments, which are finely and longitudinally striated; first as long as the second and third together; under-side yellow for more than half the length from the base. Oviduct nearly as long as the body. Four anterior legs luteous; coxae black towards the base. Hind coxae and hind femora black, with yellow tips, the latter also yellow at the base; hind trochanters and hind tibiae yellow, the latter black towards the tips and with a blackish spot above near the base, their spines yellow; hind tarsi black, yellow at the base. Wings dark cinereous; stigma and veins black; discal areolet triangular. Length of the body 4 lines.

11. *Macrus apicifer*.

Female. Black. Head and thorax rather roughly punctured. Mouth testaceous. Antennae red, a little shorter than the body, black at the base. Mesothorax white about the insertion of the wings. Metathorax white on the hind part and with a white dot on each side in the fore part, the outline of the white hue conical. Abdomen red, punctured, fully twice as long as the thorax; first, second, and third segments white on the hind borders; first white at the base; fifth, sixth, and seventh black, short. Oviduct nearly as long as the abdomen. Four anterior legs whitish. Hind legs red; coxae and trochanters black, with whitish tips; tarsi black; tips of the first, second, and third joints testaceous. Wings cinereous; stigma and veins black. Forewings with a black apical spot; discal areolet triangular, with a very long petiole. Length of the body 5 lines.

12. *Ecthrus atrator*.

Female. Deep black, shining, nearly smooth. Antennae somewhat shorter than the body, with a white band composed of three joints. Metathorax large, convex, with two slight diverging longitudinal furrows in front. Abdomen subpetiolated, subfusiform except towards the base, much longer than the thorax, clavate when seen sideways, white at the tip above. Sheaths of the oviduct ferruginous, as long as the abdomen. Wings blackish; stigma and veins black; discal areolet pentagonal. Length of the body $3\frac{1}{2}$ lines.

TRYPHONIDÆ.

13. *Mesoleptus stygius*.

Male. Black, shining, thinly and very finely punctured. Head transverse, subquadrate. Antennae nearly as long as the body, ferruginous beneath. Metathorax with a well defined longitudinal furrow. Abdomen smooth, subsessile, very elongate fusiform, much longer and narrower than the thorax, hardly compressed; third segment red at the base. Tibiæ and tarsi dark red, the latter and the hind tibiæ with black tips. Wings blackish; stigma and veins black; no discal areolet. Length of the body 4 lines.

OPHIONIDÆ.

14. *Campoplex albimanus*.

Male. Black, thickly and minutely punctured. Antennae somewhat shorter than the body. Metathorax with a slight longitudinal keel. Petiole long, slender. Abdomen compressed, widening slightly from the base to full two-thirds of the length, very slightly tapering from thence to the tip, much longer than the thorax. Legs long, slender; tarsi very long, much longer than the tibiæ; four anterior legs whitish, their femora black except at each end; middle tarsi blackish; tips of first to fourth joints whitish; first whitish towards the base; hind tarsi white, black at the tips. Wings dark cinereous; stigma and veins black; discal areolet quadrangular, very small. Length of the body 6 lines.

15. *Sagaritis ventralis*.

Female. Black. Head and thorax thickly and minutely punctured, slightly shining; clypeus prominent. Mandibles yellow. Antennae shorter than the body; first joint luteous beneath. Areas of metathorax slightly marked. Abdomen subfusiform excepting the petiole, much longer than the thorax; dorsal segments luteous on each side from the middle to the tip; ventral segments yellow. Coxae and four anterior legs yellow, the former short and thick. Hind femora luteous; hind tarsi black. Wings dark cinereous; stigma and veins black; discal areolet triangular, minute, petiolated. Length of the body $4\frac{1}{2}$ lines.

16. *Charops* (?) *luteipes*.

Female. Black. Head and thorax very thickly and minutely punctured, not shining. Mandibles yellow. Antennae shorter than the body; under-side of first joint reddish-yellow at the tip. Metathorax with distinctly marked areas. Mesopectus with a slight furrow. Abdomen fusiform excepting the petiole, much longer than the thorax. Oviduct about one-third as long as the body. Legs reddish; hind coxae black. Wings cinereous; stigma and veins black, the latter testaceous towards the base; no discal areolet. Length of the body $2\frac{1}{2}$ lines.

BRACONIDÆ.

17. *Bracon semiluteus*.

Female. Deep black, smooth, shining. Antennae a little shorter than the body. Abdomen luteous. Oviduct much shorter than the body; sheaths curved upward. Wings black; stigma and veins deep black. Length of the body 2 lines.

Nearly allied to *B. ovator*, Nees; the oviduct is shorter.

EUSPATHIIDÆ.

18. *Spathius fasciatus*.

Female. Black, smooth, shining. Head nearly round.

Palpi whitish. Metathorax rugose, with four slight keels. Abdomen piceous, elongate oval excepting the petiole, with a luteous band on the hind border of each segment. Petiole black, slender, cylindrical, full half as long as the rest of the abdomen. Legs luteous. Wings cinereous; stigma and veins black, the latter testaceous at the base. Length of the body 2 lines.

HECABOLIDÆ.

19. *Hecabolus cinctus*.

Male. Black, shining. Head and thorax smooth; head nearly round; palpi yellow. Antennae slender, rather longer than the body. Metathorax striated. Abdomen subsessile, slightly scabrous, dingy whitish beneath, rather longer than the thorax; hind borders of third to fifth segments whitish; tips tawny. Legs luteous. Wings blackish; stigma and veins black. Length of the body 2 lines.

CHELONIDÆ.

20. *Chelonus diversus*.

Male. Black, thickly punctured, slightly shining. Head yellow, black behind and about the base of the antennae. Antennae pale red; first joint black. Mesothorax with a quadrate yellow spot which has a very deep angular notch in front; a yellow stripe on each side. Propectus yellow. Abdomen with three segments, yellow towards the base, this hue includes all the first segment, except a spot on each side, and forms a large spot on the second segment; under-side yellow. Legs yellow; tips of hind femora and of hind tibiae black, the latter clavate. Wings pellucid, pale brownish about the tips; stigma large, black; veins yellow, black towards the tips. Length of the body $2\frac{1}{4}$ lines.

ICHNEUTIDÆ.

21. *Proterops basalis*.

Male. Black, stout, sabrous dull. Palpi testaceous.

Antennae stout, not shorter than the body. Mesothorax with three longitudinal keels and with a slight transverse ridge. Pectus with a deep longitudinal furrow. Abdomen smooth, shining, nearly round exclusive of the petiole, white on each side toward the base, almost wholly white towards the base beneath. Petiole stout, rather long. Fore legs red. Middle tarsi and tips of middle tibiae ferruginous; spines of hind tibiae whitish. Wings black, very broad; stigma deep black. Length of the body $2\frac{1}{2}$ lines.

BETHYLIDÆ.

22. *Epyris crassicornis*.

Female. Black, elongated, shining. Head elliptical, thinly and largely punctured. Antennae red, thick, compact, less than twice as long as the thorax; first joint black. Prothorax elongate, narrower in front, punctured like the head. Mesothorax rather short, nearly flat. Metathorax much developed, tapering hindward. Abdomen fusiform, a little broader but hardly longer than the thorax, red at the tip. Wings brown; veins tawny. Length of the body $2\frac{1}{2}$ lines.

CYNIPIDÆ.

23. *Rhodites Japonica*.

Female. Black, shining. Antennae filiform, slender, shorter than the body; first joint red, stout; second elliptical; third and following linear. Abdomen and legs red. Wings brownish; veins black, strongly marked; an elongated black spot at each end of the radial areolet. Length of the body 2 lines.

It has much resemblance to the American *R. bicolor*, Harris, but the radial areolet is larger.

24. *Synergus Japonicus*.

Female. Black, stout. Head and thorax finely punctured. Head with a luteous dot on each side of the clypeus. Eyes livid. Antennae luteous. Scutum with

three striae, the pair slightly converging hindward. Abdomen slightly compressed. Oviduct extending a little beyond the abdomen. Legs luteous; femora, except towards the tips and coxae, black. Wings pale cinereous; veins yellow. Length of the body $1\frac{3}{4}$ lines.
